

CURRENT SITUATION

SITUATION

The science center is located in the middle of the salt marsh. This is the best place for the science center, it is at the boundary of land and water. At this point, the effects of the changing landscape are immediately tangible. By removing the dike, the landscape changes and a salt marsh exists. At the first couple of years, the area will overflow regularly. The science center is difficult to reach at certain moments. For the reason that the visitors has to put a great deal of effort to reach the centre, they become aware of the landscape and they experience it optimally.

The main route to the science center is on foot through the path from group accommodation Kieviet's Hoeve. The existing path will be improved by the use of clay shells. This is a natural material that is coming from the region, namely from the Wadden Sea. At this place there is the opportunity to park. By collaborating with the Kieviet's Hoeve, local entrepreneurs become involved in the science center and its plans. As example, the Kieviet's Hoeve have places to sleep which can be used by the investigators. They will namely stay multiple days at the island during their research.

The science center is accessible for motor vehicles in case of emergencies or supply by the existing path from the Verbindingsweg. This path is hardened by clay shells.

CONCEPT

landscape view on all directions of the wind. T and minimal disturbed by an simple and y gesture. The volume is a supplement in the landscape ecause of his geometric basic shape and it is super transparent skin. The circle is with its pure and abstract form the best choice for this purpose.

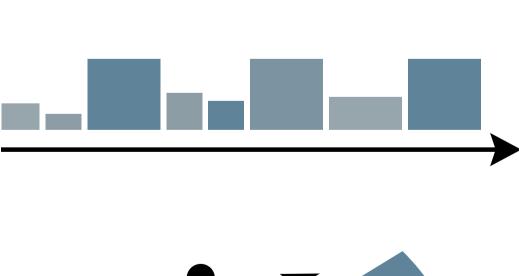
The circle is created by making a cut in the landscape and by pulling the lan ng the line. In this way, the landscape us to the roof of the volume and there exists only one new line in the landscape.

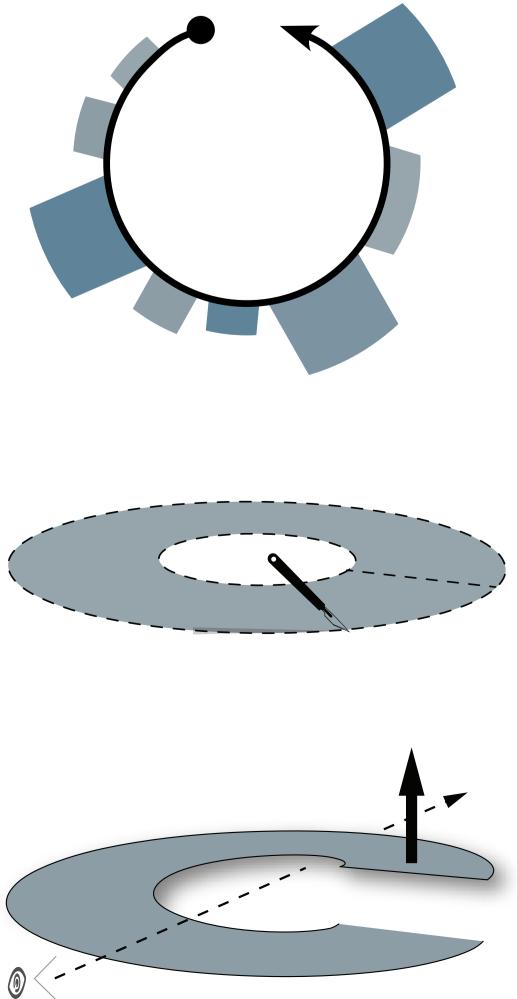
There is a closed route through the science center which slowly descend in the ground. In this way, the perceptior of the landscape alters during the route. volume dissolves completely into cape. At the same this, because interaction with landscape arises, because the landscape uously experienced at a different level. In this way, the user becomes part of the landscape, they no longer or stand on it but they experience it at each

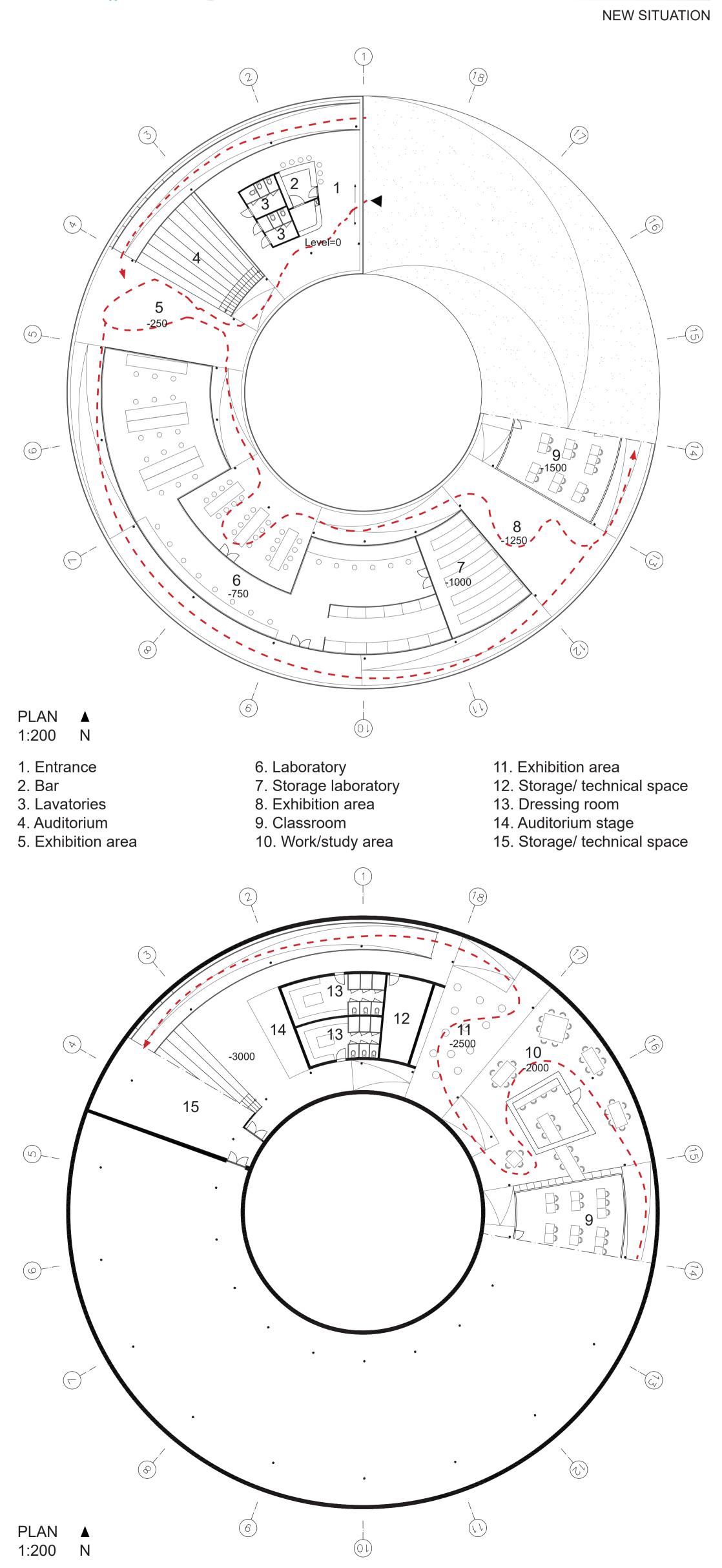
The functions that are linked to the route are geared to the level of the building and the corresponding line of sight. Each sition has a certain level towards th andscape. For example, the investigate look out over the landscape at eye level when they sat at their desk. There are two different worlds within the

volume: one light, transparent, and clear world above the surface level, and one heavy world below the surface level. T is reflected at the materialisation a the experience of the space. The uppe world is transparent and a higher space while the underworld is lower with more



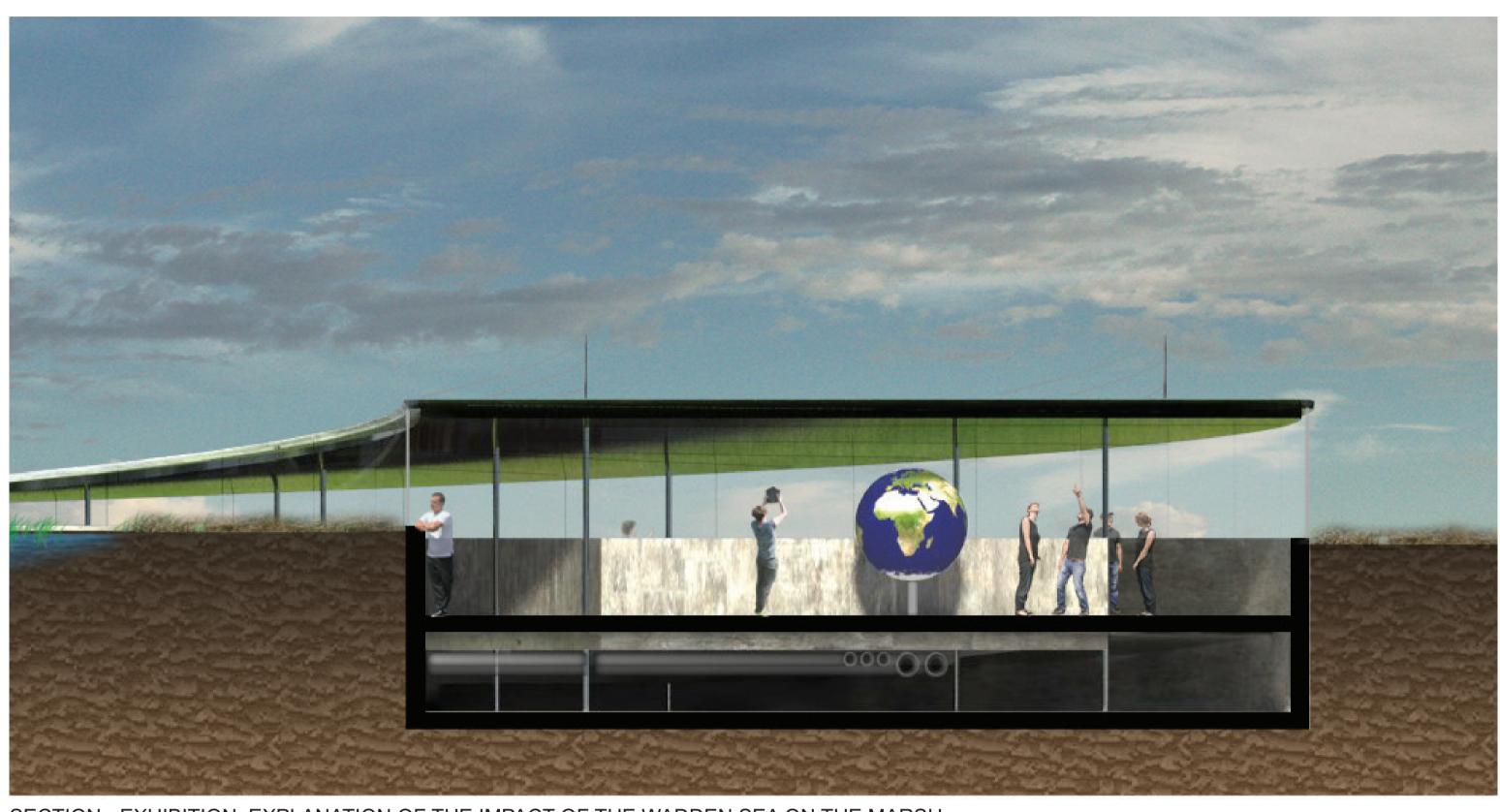




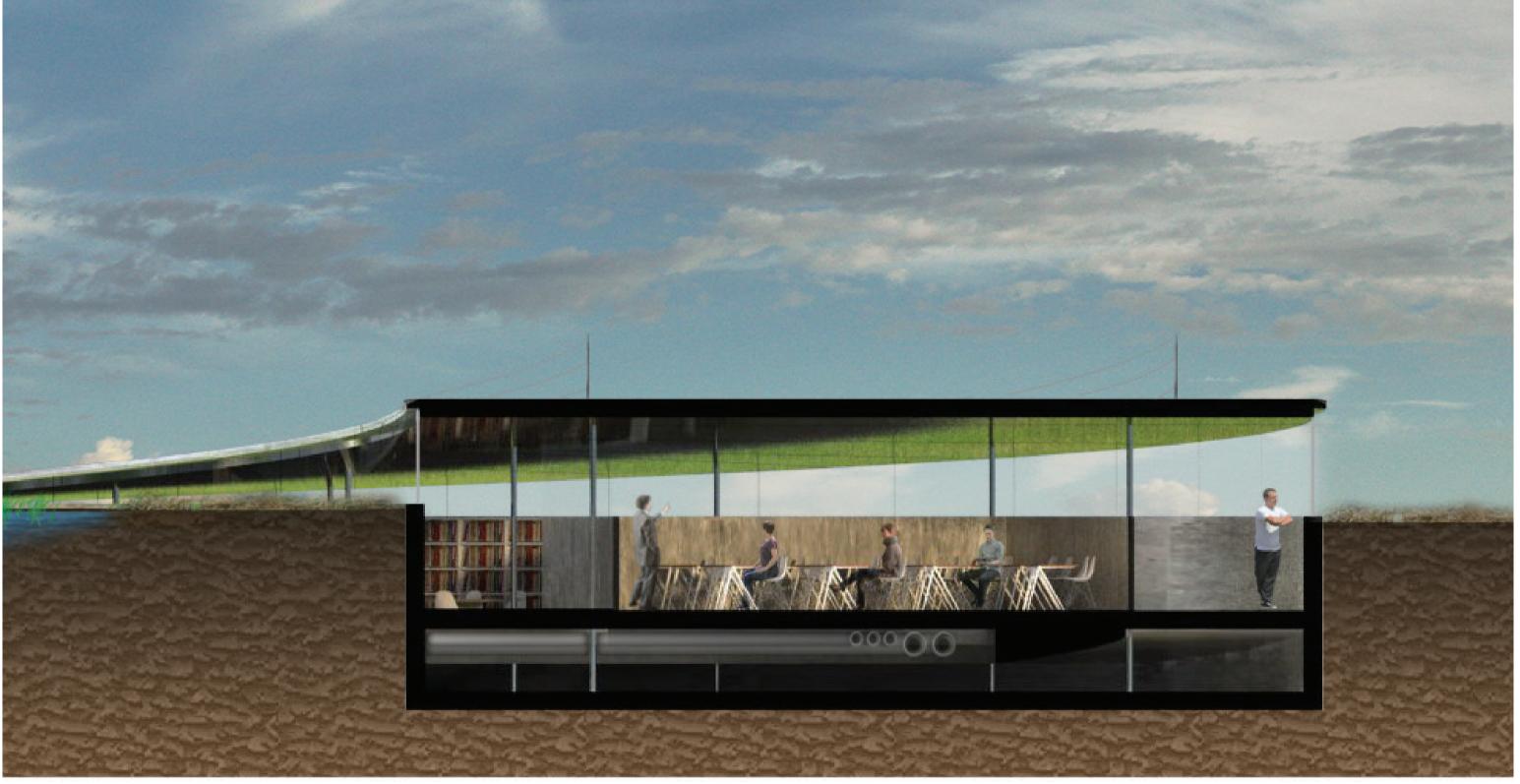




SECTION - EXHIBITION: EXPLANATION OF THE SALT MARSH



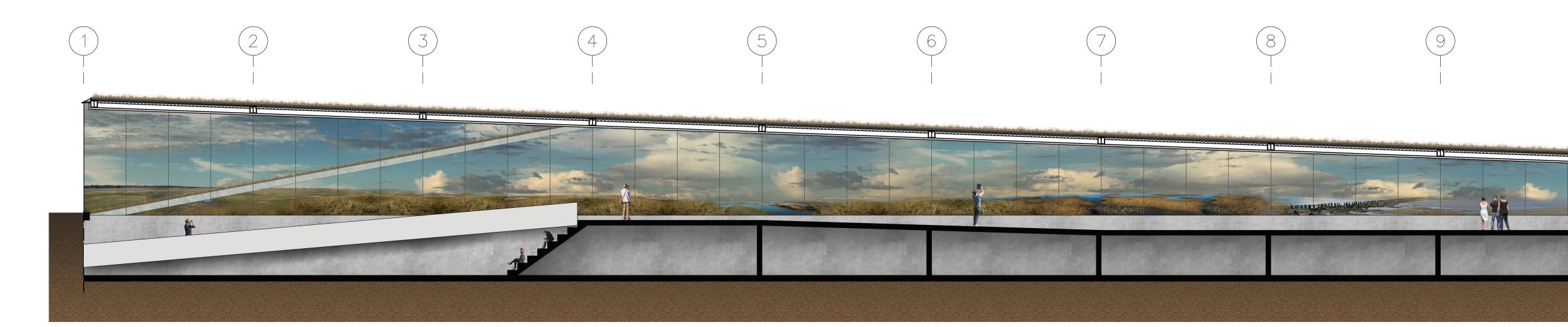
SECTION - EXHIBITION: EXPLANATION OF THE IMPACT OF THE WADDEN SEA ON THE MARSH



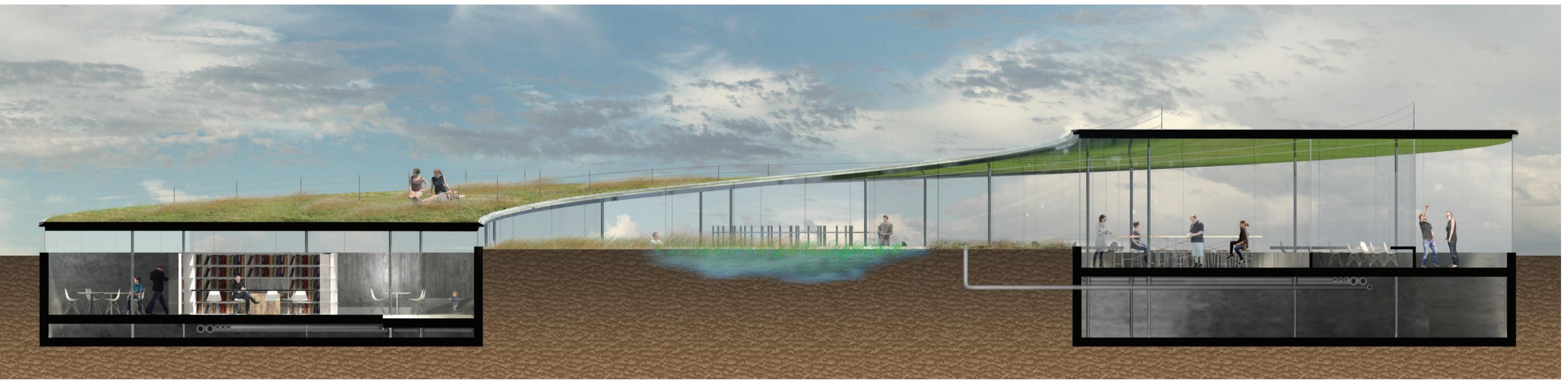
SECTION - CLASSROOM



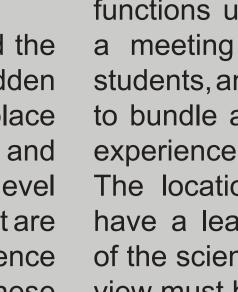
SECTION - EXHIBITION: DISPLAY OF A DOCUMENTATION ABOUT THE SALT MARSH











INTRODUCTION Considering the rising sea level and the high expenses of heighten the Wadden bighten the Wadden functions could come together bighten the Wadden bighte dike, it is of importance to create a place to bundle and exchange their thoughts, where knowledge, investigation and experience and knowledge. A MIRAGE IN THE SALT MARSH OF AMELAND of importance to design an interactive pioneer for other island building that dissolves and is a mirage in are struggling with the second second and building that dissolves and is a mirage in are struggling with the second second second and building that dissolves and is a mirage in are struggling with the second se

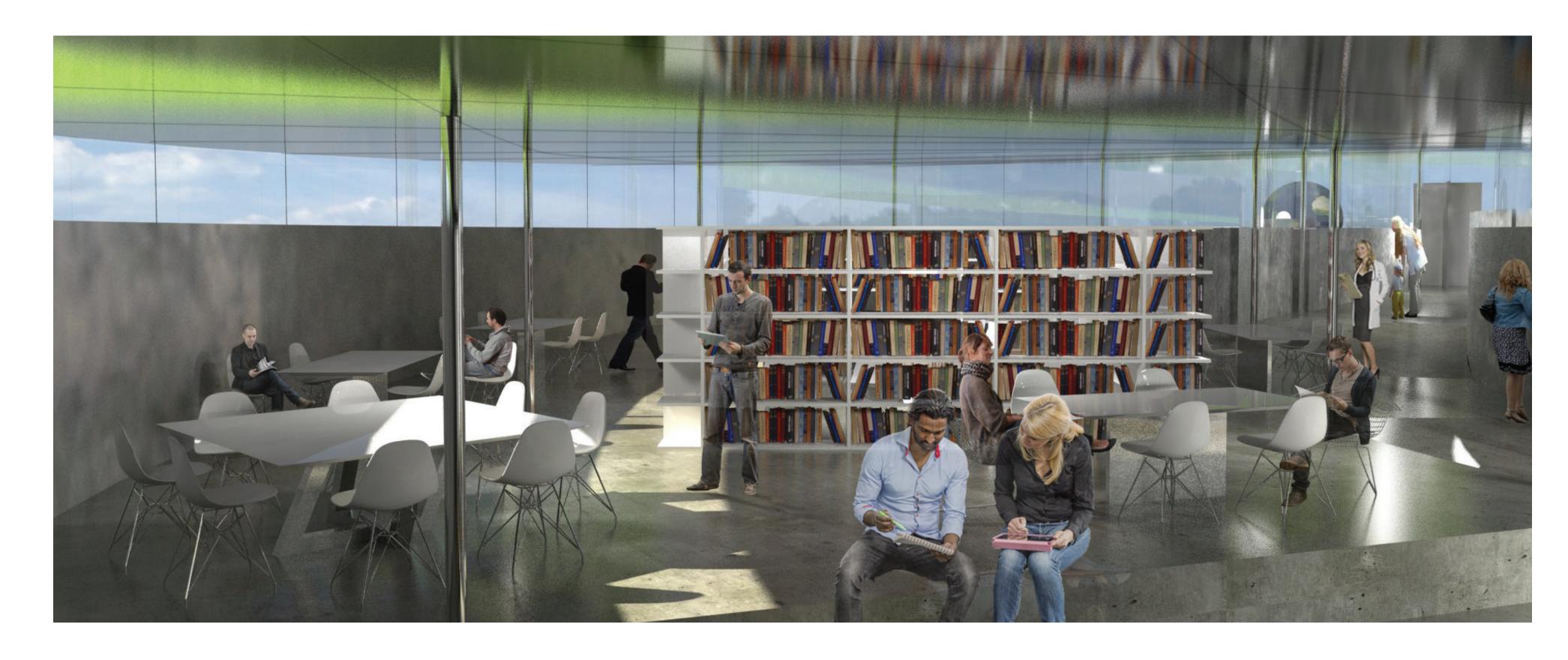
The designed science of the science center and the panoramic Mentor: Henk Bultstra (Sputnik) center on Ameland has to offer all these view must be maintained. The science Committee: Remco Bruggink

Kuilenburg & Pieter Feenstra
COPYRIGHT © 2016 MA+Uslowly curls into the landscape.tourists visiting Ameland and by workinCOPYRIGHT © 2016 MA+UCreating a science center is not onlytogether with local entrepreneurs.



ROUTING

There are three different target groups within the science center: the investigators, the students, and the visitors. The spaces are places in such a way, that out of each space the position of the landscape and the level in the land, is used as optimal as possible. In this way, the interaction between the users and the landscape optimised. As example, from the laboratory, vestigators have from their desk a good view on the salt marsh they need to monitor. The science center has three exposition areas that a Il their own story about the salt marsh and how tribute to keeping Ameland safe of the rising s level. Furthermore, it is for visitors interesting to s e investigators work. That will stimulate the touris o think about "what if the dikes could not protect hymore?" and it will make the tourists more aware ne importance to think about other ways to protect the coast. The students could be the binding factor in th gether with the tourists, the students could condu xperiments to clarify the consequences of the rising se level and to show how a salt marsh could keep Amelar





DETAILING & INSTALLATIONS The roof edge tapers off to one point to create one line in the

Non reflective glass —

DETAIL 1:10

landscape. The glazed walls and the pillars reach into the ceiling In this way, only a seam is visible and the ceiling is disrupted as little as possible. The science center will be heated by the sun and cooled down by the spaces beneath the surface level. The air is circulated which creates an optimal climate. Ventilation ai s drawn in through the roof edge and it is extracted by the floor. The glass maintains the energy facility and, when needed, this s assisted by a fuel cell. In this respect, there are hardly an loses and energy is produced in a very efficient way.

Thermal insulation;

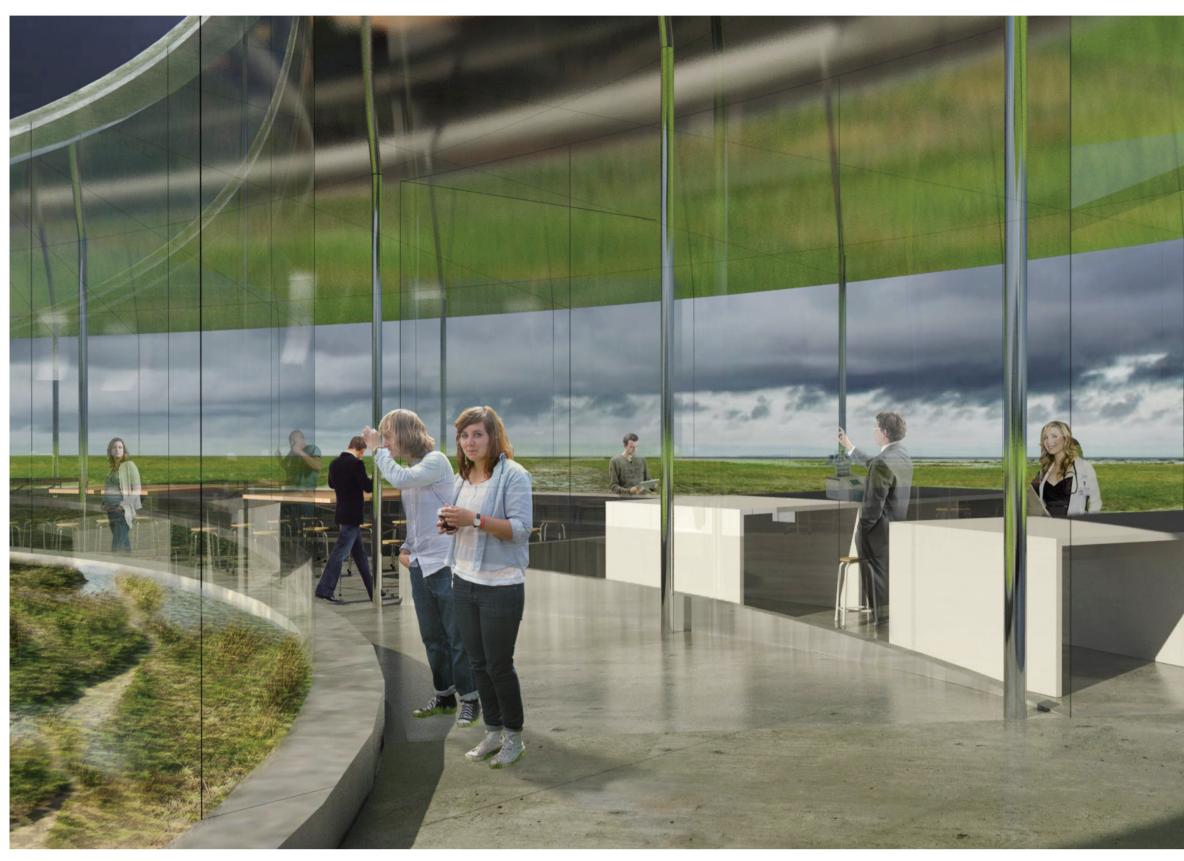
Structural concrete

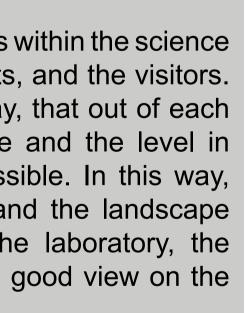
Vapour control layer

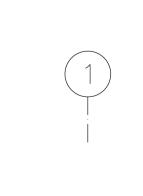
Kingspan Optim-R Rc=5,

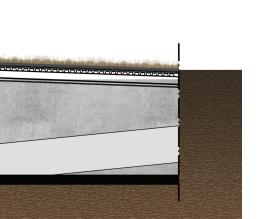
Exhaust air

Invisible fixing system Polished stainless steel panels



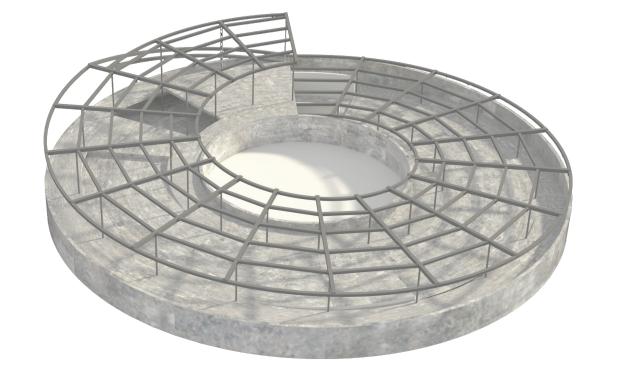






% amount of sunlight **DAYLIGHT STUDY** As can be seen in tl

sun light, there are blinds placed at the laborator



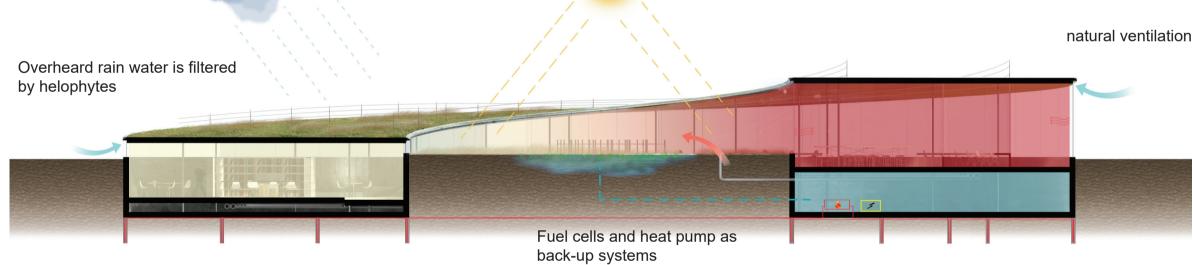
The construction in the light upper world is light and made

will consist of concrete walls and floor fields in situ.

steel and it is carried by solid steel pillars. The heavy underworld

STRUCTURE





Dpgeweld uit wier en zand ans omspoeld door zilte baren

oge God het steeds bewaren Het plekje rijk aan duin en strand Het ons zo lieve Ameland" ¹

aracteristic villages. For Ameland inhabitants, the island is much more than design could, for example, be made expressive by developing a volume / have even their own folk song (as can be read in the citation above). owever, Ameland has an uncertain future. It has a history of fighting the s the opportunity to implement dynamic coastal management at the

is raises the question, how could dynamic coastal management be

aduation student and designer Tim Bolleboom has invented a plan to design an interactive science center, with also a research lab, at the will be a venue that inspire people, attracts new knowledge, investigators, udents, and tourists to the island. Ameland as a research lab leads to the abstract form, the best choice for this purpose. velopment of Ameland as global pioneer island in exploiting the symbio potentials in gaining knowledge of, and realizing a dynamic coastline. /e spoke to this graduation student about his vision and ideas behind the science center.

/hy a science center and why Ameland? nsidering the rising sea level and the high expenses of heighten the estigation and testing new solutions for the rising sea level and for dynamic also all interior walls above the surface level are transparent. al management are brought together.

and experiences with dynamic coastal management for years. creating a knowledge and workplace on Ameland for practically oriented the landscape. d applied research – with the islanders and towards the islanders. Both ts taken into account, it is a logical step to create a science center and In which way contributes the science center to the experience and interaction st location there, whereupon Ameland could function as global pioneer. nowledge and experienced gained will immediately put into practice at the The interaction takes place on multiple levels. The landscape will be test area, which is the new salt marsh.

What has the science center to offer?

The science center has more functions than just being an investigation centre. Furthermore, het interaction is reinforced by the hard division created visitors are brought together. The centre is accessible for tourists who want surface level. The underworld is dark, cool, and secure, whereby the focus is to gain more knowledge of the projects of the students by demonstration, at yourself. experiments, and presentations. An additional benefit of Ameland as pioneer knowledge, but it also needs to help and reinforce the nature. The landscape along the coast of Ameland, among natural and urban systems. nust not be disrupted by the science center, the panoramic view must be Where the historical buildings are important signatures as well as highly maintained.

what way does this plan contribute to inhabitants Ameland? With the investigation conducted at the science center, Ameland will also be landscape and salt marsh to build a sciene center on Ameland where a there is not enough money anymore in the future, choices need to be made to together with the aim of gaining, sharing and bringing back knowledge, he dike could not be protect anymore.

he science center gives the Ameland inhabitants the opportunity to xperience how the salt marsh could be used to protect the island against of Ameland as global pioneer island in exploiting the symbiotic potentials in e sea. For them, it is fraught to remove the dike, that have protected them gaining knowledge of, and realizing a dynamic coastline. against the water for years, and to give back a piece of land to the tide of the Wadden Sea. The science center is the pre-eminent location to inform the

A SCIENCE CENTER AS A MIRAGE IN THE SALT MARSH OF AMELAND inhabitants completely and to introduce them to a new way of dynamic coastal management.

What kind of architecture fits the best in a sensitive salt marsh landscape? The science center is located in the middle of the salt marsh, at the boundary of land and water. At this point, the effects of the changing landscape are immediately tangible.

It is of importance that the design is a supplement to the landscape. or many people, Ameland is a touristic base with sun, sea, beach and According to designer Tim Bolleboom, this is possible in several ways. The ouristic attraction. They are proud of their island, the rich history of it, and contrasting to the landscape. In this way, the volume is very present and it abstracts the attention away from the landscape However, this landscape is responsible for keeping Ameland dry and safe. ements. In its isolation, nowadays Ameland has to face the disastrous loss Therefore, Tim thinks that the landscape must have a leading role and that youth and in addition, knowledge. In its search for symbioses between the architecture fits in a way into the landscape so that it is disturbed as few chitecture, innovation, knowledge, and the fight against water, the island as possible. However, the volume might be present in the landscape. The question is, could this be combined? In Tims opinion, this is possible. He has combined both principles by making a cut in the landscape and by pulling it up along the line. In this way, the landscape continuous and the volume is like a mirage. With its completely transparent and non-reflecting glass, you can look across the volume and experience the volume optimally. The architecture seems to dissolve and the landscape takes its prominent position. The only visible thing is the line that shows how the landscape curls upwards. ndscape that exists through creating a new salt marsh. The science center The volume is a minimalistic supplement in the landscape because of his geometric basic shape and its transparent skin. The circle is with its pure and

How positions the design of the science center within the field of architecture? The science center is characterised by a minimalistic look with its pure and abstract circular form. By making a 'powerful' object of something looking 'simplistic', Tims tries to represent the essence of his design. In this way, he expresses simplicity and he accepts the landscape as it is. Also the interoir is brought back to the minimum, so the distraction of the adden dike, it is of importance to create a science center where knowledge, landscape is reduced to a minimum. To maintain the transparent character, Yet, the volume is more than just minimalistic. The design pretends to by a mirage in the salt marsh. From a distance, the science center seems to rthermore, at April 2014, municipality Ameland has signed a declaration be ae line curled above. However, when coming closer, the landscape runs ntent with Kenniswerkplaats Noordoost Fryslân. The intention is focused through and you can look right through the centre. The volume dissolves in

of the landscape? experienced on several heights because the volume turns slowly into it. In this way, the perception of the landscape alters during the route. The user becomes part of the landscape, they no longer only stand on it. s a multifunctional and innovative place where students, investigators and between the light world above the surface level and the heavy world below the

of dynamic coastal management with its science center, is that it stops the Concluded, continuance and expansion of dynamic coastal management will nove away of highly educated youth and, therefore, knowledge. introduce a new layering of the landscape where man and nature reconnect. The building will also positively contribute to the island, not only in the field of These landscapes create opportunities for new development and add value valued objects, architecture should fulfil a pioneering role in exploiting the symbiotic potentials the new landscape has to offer. Graduation student and designer Tim Bolleboom will use this new created rotected to the rising sea level in the future. Raising the dike becomes more lot of functions and different people are brought together. The centre is an expensive each time, nowadays the estimated costs are 77 million euro. If interactive and ideal location for bringing investigators, students and visitors pout which dike would and would not be maintained. Therefore, it is for the conducting experiments and giving presentations about dynamic coastal nhabitants of Ameland of great important to have an alternative solution when management. With new innovations and possibilities of fighting the rising sea level, the inhabitants do not have to fear anymore for floods. Furthermore, Ameland with its science center and research lab leads to the development